

PATENT

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OFFICIAL**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Applicant(s): Carl J. Dister

Examiner: Craig S. Miller

Serial No: 09/164,206

Art Unit: 2857

Filing Date: September 30, 1998

Title: PACKAGING FOR DYNAMOELECTRIC MACHINE DIAGNOSTIC
SYSTEM

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

REPLY BRIEF

Dear Sir:

Applicant's representative submits this reply brief in response to the Examiner's
Answer mailed December 22, 2003.

A Request for Oral Hearing is being submitted concurrently herewith. The
Commissioner is authorized to charge the fee of \$290.00 pursuant thereto to Deposit
Account No. 50-1063, Order No. ALBRP125US.

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- i. *The Office Action rejects the subject claims even though it concedes that relied upon references fail to teach or suggest the inventive feature of positioning the module on the dynamoelectric machine such that data can be collected from a same precise location.*

In the Examiner's Answer, the Examiner contends, relying on *In re Winslow*, 53 CCPA 1574, 1578, 365 F.2d 1017, 1020, 151 USPQ 48, 50-51 (CCPA 1965):

All that is required to show obviousness is that the applicant, "make his claim invention merely by applying knowledge clearly present in the prior art. Section 103 requires us to presume full knowledge by the inventor of the prior art in the field of his endeavor."

Applicant's representative disagrees. The standard by which obviousness is measured is based upon three criteria, all of which must be satisfied in order for an assertion of obviousness to be substantiated. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See*, MPEP §2143. The MPEP therefore is explicit in its assertion that knowledge that is generally available to one of ordinary skill in the art must provide the suggestion or motivation to modify or combine the reference teachings.

Further, in order to sustain a motivation to combine references, it must be objectively demonstrated that the motivation to combine is based in the "nature of the problem solved, the teachings of the prior art, *and* the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (emphasis added). *Rouffet*, further provides that that "even when the level of skill in the art is high, the [Examiner] must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. *Id.* at 1359. Thus, it is clear from *Rouffet*, that the motivation must be based *not only* on the knowledge of persons of ordinary skill in the art, *but must also* be based upon some suggestive teaching found within the knowledge as generally known. In other words, there must be some teaching in the knowledge as generally known that would have motivated and impelled one with

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an ordinary skill in the art to have combined the references. Simply stating that there is a presumption that an inventor has full knowledge of the prior art in the field of his endeavor without showing that there was a demonstrable impetus within the prior art references themselves, or the knowledge as generally known, to lead/motivate an inventor to combine the references is to conflate the necessary test. According to the Federal Circuit in *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002), a conclusion of obviousness based solely on "common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference" is impermissible. *Id.* at 1343. Further, in *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000), the panel stated that "particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *Id.* at 1371.

Thus, it is submitted the Examiner's contention that obviousness need only be demonstrated by a showing that knowledge was present in the prior art, and that the section 103 requirement that the inventor is deemed to have full knowledge of the prior art in the field of his endeavor, without more, is clearly fallacious. The standard that the Examiner must satisfy is not only that knowledge is clearly present in the inventor's field of endeavor, *but also* the Examiner must be able to point to some clear teaching, suggestion, or motivation within that knowledge that would have impelled the inventor to have combined the references. This, the Examiner has not been able to do. A mere recitation of what is generally known in the art without specifying or pinpointing that knowledge within the wide body of general knowledge which the Examiner deems to have necessarily impelled the inventor to his inventive feat, is not sufficient to satisfy the motivational aspects necessary to combine the references.

Moreover, the Examiner appears to be taking Official Notice of facts not specifically supported by the cited references and apparently considers such as "well known" or common within the art. Applicant's representative requests the Examiner to provide a showing of evidence in support of such assertions pursuant to MPEP §2144.03, or in the alternative, withdrawal of this assertion from the rejection.

The Examiner further contends, in Examiner's Answer that:

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Appellant has disregarded the detailed process of thought found within the rejection ... and has attacked the rejection as being made in hindsight.

Once again, applicant's representative disagrees. Since, as has been discussed *supra* in relation to the fact that Examiner has been unable to specifically provide the motivational requirements necessary to sustain a finding of obviousness under section 103, the only rational conclusion that one may be draw in this circumstance is that the Examiner is impermissibly utilizing applicant's specification as a 20/20 hindsight-based roadmap to achieve the purported combination.

- ii. *The cited references, alone and in combination, fails to teach or suggest a heat dissipation arrangement that regulates heat flow from one component of a system (the dynamoelectric motor) to a second component of the system (the container.)*

The Examiner points out at the top of page 7 of the Answer, Webster's Ninth New Collegiate Dictionary defines regulate as, "*1a: to govern or direct according to rule ...*". Accordingly, the subject claimed invention dissipates heat using the immutable laws of physics; it is the laws of physics that governs or directs how a particular substance will or will not conduct/transfer heat. Therefore, it is the laws of physics that are utilized by the heat dissipation arrangement to regulate, *e.g.*, govern or direct, heat flow from one component of the system to a second component of the system. Further, reduction of heat flow must also be subject to those laws of physics that govern, *e.g.*, regulate, heat dissipation, and consequently such would be manifestly understood by one of ordinary skill in the art. None of the prior art references cited by the Examiner utilize the laws of physics as understood by one of ordinary skill in the art to curtail the transfer of heat from one component to a second component. The prior art references cited by the Examiner simply teach the transfer heat generated by a machine *into the ambient atmosphere*; they do not teach the use physical laws to *prevent the generated heat from a first component from being transferred to a second component*.

Moreover, Applicant may be his or her own lexicographer as long as the meaning assigned to the term is not repugnant to the term's well-known usage. *In re Hill*, 161 F.2d

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367, 73 USPQ 482 (CCPA 1947). Any special meaning assigned to a term "must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention." *Multiform Desiccants Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998).

With respect to Examiner's contention that:

... Examiner need not show that the prior art performs this function for the same reason as Appellant.

Applicant's representative disagrees. While the Examiner need not show that the prior art performs the function for the same reason that the Applicant discloses, the Examiner, as discussed above, must nevertheless point to some teaching in the prior art that provides the motivation or suggestion to combine the references. *See, In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992). As has been maintained throughout this Reply Brief, Examiner has been unable to point with specificity to any prior art reference that provides the motivation or suggestion to combine the references to provide the functionality that the applicant has disclosed.

Examiner asserts, in the middle of page 7 of the Answer:

Applicant's contention that the prior art "*directs heat from the dynamoelectric machine into the mode, as opposed to away from the module*" is not supported by the facts.

According to the Examiner, Emori *et al.* shows airflow transporting heat away from the associated electronics, and that Lakin *et al.* discloses that heat is transferred away from the electronics by artificial air flow. Applicant's representative respectfully disagrees.

Both Laken *et al.* and Emori *et al.* are clearly directed towards heat sink apparatuses that dissipate heat from a plurality of components to a surrounding medium/atmosphere. In Figure 2, Emori *et al.* illustrates the heat sink dissipating heat into the ambient atmosphere. The heat sinks as recited in both Laken *et al.* and Emori *et al.* do not provide a barrier to the conduction of heat from the heat source into the associated electronics, but rather both Lakin *et al.* and Emori *et al.*, recite a heat sink that dissipates heat into an ambient medium. Further, the heat sinks as taught in Laken *et al.* and Emori *et al.*, in order to ensure that heat is dissipated into the ambient medium from

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the heat source as rapidly as possible, provides that the temperature differential between the base of the heat sink and the tip of the heat sink is extremely low. Implicit in these teachings therefore is a recognition that the heat sink is an extremely efficient conductor of heat. Thus, it can only be concluded that where the heat sinks as taught by either Laken *et al.* or Emori *et al.* to be utilized in conjunction with a heat source, and interpositioned between a heat source and a electronic component, that the heat sink would calamitously conduct the heat from the heat source into the electronics component, rather than providing a barrier to the conduction of heat and hence preventing heat from the heat source entering the electronics component. Such a result would clearly defeat the aim and purpose of the subject claimed invention. Thus, it is submitted that these teachings combined with the combined knowledge within the art would result in the exact opposite of that which applicant is seeking to achieve in the claimed invention.

Examiner contends that motivation to combine is provided by the statement within the rejections, "... so as to receive the expected benefits derived therefrom such as increased heat insulation and increased resistance to EMF interference from the dynamoelectric machine." Applicant's representative disagrees.

As has been stated *supra*, the use of the heat dissipation device in Emori *et al.* would not result in the heat insulation that the Examiner seems to find so apparent. As has been argued above, Emori *et al.* rather than insulating the electronics component, as the Examiner asserts, would in fact conduct the heat from the dynamoelectric machine into the electronics component. The use of Emori *et al.* would in fact negate any expected benefits derived from the purported combination.

- iii. *The cited references, alone and in combination, fail to teach or suggest a plurality of fins that facilitate thermal isolation of the module, and minimize heat transfer thereto.*

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The Examiner contends that figure 8 of Emori *et al.* and figure 8 of Lakin *et al.* dissipate heat away from the heat source, thereby providing both heat dissipation and thermal insulation. Applicant's representative disagrees.

With respect to Emori *et al.* figure 8 discloses a heat source that is disposed above the electronic apparatus, rather than below the electronics package, the clear intent of Emori *et al.* in placing the heat source above the electronics components is to benefit from simple laws of thermodynamics which dictates since heat rises, and thus a greater proportion of heat generated by the heat source would naturally dissipate into the ambient atmosphere above the heat source. Emori *et al.* specifically states, and all the diagrams show, that the heat source should be placed above the electronics package, *see*, col. 2, lines 49-52, figures 1-2, 5, 8-9 and 12. The Examiner by inverting the device, which the prior art specifically does not provide for, would in effect render the device as recited in Emori *et al.* inoperable for its intended purpose. According to the Federal Circuit *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984), where the Examiner has to invert a prior art device in order to achieve that which the applicant has claimed, is a clear admission that the prior art reference teaches away from the invention. *Id.* at 1127.

With respect to the teaching provided by figure 8 of Lakin *et al.*, the fins that are disposed above the electronics and the conduit box walls *simply cool* the electronics and the conduit box walls, *they do not provide any insulation* to the electronics components as is provided for in the applicant's claimed invention.

Thus, since Emori *et al.* teaches away from placing the electronics package above the heat dissipation device and dynamoelectric machine, and Lakin *et al.* does not provide the necessary insulation necessary to place electronics component above the dynamoelectric machine, it is submitted that Emori *et al.* does not make the subject claimed invention obvious in light of Lakin *et al.*, and further there would clearly have been no motivation to have combined any of the references cited by the Examiner to provide the device that applicant has claimed.